

## REMARKS

Claims 1-26 were pending in the application. Claims 27-34 were previously cancelled per the restriction requirement. Claims 5 and 14 have been cancelled. Claims 1-4, 6-13, 15-18, and 23 have been amended. Claims 35 and 36 have been added. Claims 1, 3-4, 6-13, and 15-26 are currently pending in the application.

### 35 U.S.C. § 102 Rejection:

Claims 1-26 were rejected under 35 U.S.C. § 102(b) as being anticipated by Watanabe, U.S. Patent 5,896,211. Applicant respectfully traverses this rejection.

**The cited reference fails to teach or suggest all of the elements of the independent claims.** Watanabe teaches an optical communications system. "At a transmitting end, transmission signals corresponding to more than one channel are allocated different microwave frequencies and carriers of the microwave frequencies are modulated with the transmission signals in modulators. A filter is placed in the preceding or succeeding stage of a respective modulator to band-limit a corresponding transmission signal before or after modulation. The band-limited and modulated transmission signals are combined to produce a microwave frequency-division multiplexed signal. The multiplexed signal modulates an optical frequency modulator to produce an optical modulated signal. The optical modulated signal is transmitted to the receiving end. At the receiving end, the optical signal transmitted from the transmitting end is detected and converted to an electrical signal. The channel components are extracted from the electrical signal by bandpass filters and then demodulated." (Abstract, Watanabe).

In contrast, Applicant's independent claim 1 recites, in

"A lithography system for use in optical measurement and/or inspection of sub-surface features in layered media, the system comprising:  
an optical multiplexer arranged to project a first optical signal onto a surface;

an output optics unit arranged to receive a second optical signal, the second optical signal resulting from the first optical signal being projected onto the surface; and

one or more optical demultiplexers coupled to receive the second optical signal from the output optics unit”

Independent claim 15 recites a similar combination of features.

Watanabe does not teach or suggest this combination of features. On page 4 of the present office action, the Examiner contends that Watanabe teaches a lithography system citing Fig.’s 1-24 of Watanabe. Applicant respectfully disagrees. Nothing in any of Fig.’s 1-24 of Watanabe teaches or suggests a lithography system. In fact, each of Watanabe’s Fig.’s 1-24 are directed toward and optical communications system. Furthermore, Watanabe makes no mention whatsoever of a lithography system or method of operating a lithography system anywhere in his specification.

Furthermore, Watanabe does not teach or suggest “an optical multiplexer arranged to project a first optical signal onto a surface” as recited in combination with the other features of claim 1. In the office action, the Examiner contends that Watanabe teaches an optical multiplexer, citing optical mixer 38 in Fig. 4. However, optical mixer 4, as shown in Fig. 4, is arranged to transmit optical signals over optical fiber 34. Nowhere in Watanabe is there any teaching or suggestion of an optical multiplexer arranged to project a first optical signal onto a surface.

Watanabe further fails to teach “an output optics unit arranged to receive a second optical signal, the second optical signal resulting from the first optical signal being projected onto the surface” as recited in combination with the other features of claim 1. The Examiner contends that Watanabe teaches an output optics unit in Fig. 1 and in col. 1, lines 65-67 and col. 2, lines 1-14. However, Fig. 1 of Watanabe shows a system wherein optical signals are transmitted to the receiving end through a fiber, and thus the

received signal is the same signal as the transmitted signal. Thus, Watanabe does not teach an output optics unit arranged as recited in claim 1.

With regard to claims 3, 4, 16, and 17, the Examiner contends that Watanabe teaches wherein the beam of light is a reflected beam of light or is a diffracted beam of light, citing Fig.'s 1 and 4. Applicant respectfully disagrees. Both Fig.'s 1 and 4 of Watanabe illustrate optical communications system wherein optical signals are conveyed via a fiber optic cable. Thus, Watanabe does not teach or suggest "wherein the second optical signal is a reflected beam of light" as recited in claim 3, and similarly recited in claim 16. Watanabe further fails to teach or suggest "wherein the second optical signal is a diffracted beam of light" as recited in claim 4 and similarly recited in claim 17.

Thus, for at least the reasons stated above, Applicant submits that Watanabe fails to teach or suggest all of the elements of the claims, and thus a case of anticipation has not been established. Accordingly, removal of the 35 U.S.C. § 102(b) rejection is respectfully requested.

## CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5717-02000/EAH.

Respectfully submitted,

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